

**WHAT IS CLAIMED IS:**

1. (currently amended) A monitoring device for vehicles, said monitoring device comprising:  
a housing (17);  
at least one mirror glass (1, 12) arranged in said housing (17) so as to have a front side facing an observer;  
said at least one mirror glass (1, 12) comprising a reflective layer (5) being reflective in the visible spectral range of light;  
at least one camera (10) arranged behind said reflective layer (5) in a viewing direction viewed from said front side, wherein said at least one camera (10) takes images through the reflective layer (5).
2. (currently amended) The monitoring device according to claim 1, wherein said reflective layer (5) is selected from the group consisting of an interference reflective layer, a chromium reflective layer, a titanium reflective layer, and a titanium-chromium reflective layer.
3. (currently amended) The monitoring device according to claim 1, wherein said mirror glass (1) is an electrochromic mirror glass or a conventional mirror glass.
4. (original) The monitoring device according to claim 3, wherein said electrochromic mirror glass has an electrochromic layer and wherein said reflective layer is arranged behind said electrochromic layer in said viewing direction.
- 3 5. (currently amended) The monitoring device according to claim 1, comprising an auxiliary lighting unit (44) configured to provide additional light for said at least one camera (10).
- 4 6. (currently amended) The monitoring device according to claim 5, wherein said auxiliary lighting unit (44) emits light of a wavelength able to pass through said reflective layer (5).
- 5 7. (currently amended) The monitoring device according to claim 5, wherein said auxiliary lighting unit (44) emits light having a wavelength outside of the visible spectral range of light.

- 6* 6. (currently amended) The monitoring device according to claim *5*,  
wherein said auxiliary lighting unit *{11}* comprises light-emitting diodes.
- 7* 7. (original) The monitoring device according to claim *6*,  
wherein said light emitting diodes emit light in the infrared range.
- 8* 8. (currently amended) The monitoring device according to claim *5*,  
wherein said auxiliary lighting unit *{11}* is arranged behind said reflective layer *{5}* in said  
viewing direction.
- 9* 9. 9. (currently amended) The monitoring device according to claim *5*,  
wherein said auxiliary lighting unit *{11}* comprises light-emitting diodes arranged in a matrix  
of rows and columns.
- 10* 10. 10. (currently amended) The monitoring device according to claim *5*,  
wherein said housing *{47}* and said mirror glass *{1, 12}* form an interior rearview mirror  
*{16}*, wherein said housing *{47}* has a rim *{18}*, and wherein said auxiliary lighting unit *{11}*  
comprises light-emitting diodes *{11}* arranged on said rim *{18}* of said housing *{47}*.
- 11* 11. 11. (currently amended) The monitoring device according to claim *12*,  
wherein said rim *{18}* is comprised of a material that is opaque to the human eye.
- 12* 12. 12. (currently amended) The monitoring device according to claim 1,  
comprising an image-transmitting fiber bundle *{19}* connected to said at least one camera  
*{18}*.
- 13* 13. 13. (currently amended) The monitoring device according to claim *14*,  
wherein said fiber bundle *{19}* has an optical head *{20}* resting against a backside of said  
mirror glass *{1, 12}*.
- 14* 14. 14. (currently amended) The monitoring device according to claim *14*,  
wherein said fiber bundle *{19}* has an optical head *{20}* and is arranged together with said  
optical head *{20}* on said rim *{18}*.
- 15* 15. 15. (currently amended) The monitoring device according to claim 1,  
wherein said at least one camera *{18}* comprises a low light level intensifier *{22}*.
- 16* 16. 16. (currently amended) The monitoring device according to claim *17*,  
wherein said low light level intensifier *{22}* is arranged behind said mirror glass *{1, 12}* in  
said viewing direction.